

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

# **NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY, FLORIDA PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

Pella Corporation 102 Main Street Pella, IA 50219

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "HIG Casement" Aluminum Clad Wood Casement Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1518, titled "HIG Aluminum Clad Impact Casement Window", sheets 01 through 05 of 05, dated 03/23/07, with revision "C1" dated 06/27/13, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P. E., bearing the Miami-Dade County Product Control Section Revision stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami–Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 12-0620.11 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by Jaime D. Gascon, P. E.

MIAMI-DADE COUNTY
APPROYED

Janson 10/31/13 NOA No. 13-0829.18 Expiration Date: November 15, 2017 Approval Date: November 07, 2013 Page 1

### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No. 1518, titled "HIG Aluminum Clad Impact Casement Window", sheets 01 through 05 of 05, dated 03/23/07, with revision "C1" dated 06/27/13, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P. E.

#### B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201–94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of series/ model HIG IG/ monolithic aluminum clad wood awning window mulled jamb to jamb to an aluminum clad wood fixed window, prepared by Element Materials Technology, Inc., Test Report No. **ESP-014011P.Casement.Dade**, dated 08/05/13, signed and sealed by Thomas A. Kolden, P.E.

- 2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202–94
  - 3) Water Resistance Test, per FBC, TAS 202-94

along with marked-up drawings and installation diagram of series/ model HIG IG/ monolithic Aluminum clad wood casement window mulled jamb to jamb to an aluminum clad wood fixed window, prepared by Architectural Testing, Inc., Test Report No. ATI-93260.01-201-18, dated 09/15/09, signed and sealed by Joseph A. Reed, P.E.

(Submitted under previous NOA No. 09–1027.05)

- 3. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201–94
  - 2) Cyclic Wind Pressure Loading per FBC, TAS 203–94 along with marked–up drawings and installation diagram of series/model HIG IG/monolithic aluminum clad wood casement window mulled jamb to jamb to an aluminum clad wood fixed window, prepared by Architectural Testing, Inc., Test Report No. ATI–93328.01–201–18, dated 08/24/09, signed and sealed by Joseph A. Reed, P.E.

(Submitted under previous NOA No. 09–1027.05)

Jaime D. Gascon, P. E.

Product Control Section Supervisor NOA No. 13-0829.18

Expiration Date: November 15, 2017

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## **Pella Corporation**

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### B. TESTS (CONTINUED)

- 4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202–94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94

along with marked—up drawings and installation diagram of series/model HIG IG/monolithic aluminum clad wood casement window mulled jamb to jamb to an aluminum clad wood fixed window, prepared by Architectural Testing, Inc., Test Report No. ATI-71262.08-201-18, dated 05/27/07, signed and sealed by Joseph A. Reed, P.E.

(Submitted under previous NOA No. 07-0619.12)

#### C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC, dated 10/21/11, prepared by W.W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P. E.

(Submitted under previous NOA No. 09–1027.05)

2. Glazing complies with ASTM E1300-04

#### D. QUALITY ASSURANCE

1. Miami–Dade Department of Regulatory and Economic Resources (RER).

### E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 13-0129.27 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont Butacite® PVB Interlayer" dated 04/11/13, expiring on 12/11/16.
- 2. Notice of Acceptance No. 11–0624.02 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont SentryGlas® Interlayer" dated 08/25/11, expiring on 01/14/17.

### F. STATEMENTS

- 1. Laboratory compliance letter for Test Report No. **ESP-014011P.Casement.Dade**, issued by Element Materials Technology, Inc., dated 08/05/13, signed and sealed by Thomas A. Kolden, P.E.
- 2. Proposal issued by Product Control, 03/26/13, signed by Jaime D. Gascon, P. E.
- 3. Statement letter of conformance and complying with FBC-2010, dated 10/21/11, signed and sealed by Warren W. Schaefer, P.E.

(Submitted under previous NOA No. 12-0620.11)

Jaime D. Gascon, P. E. Product Control Section Supervisor

NOA No. 13-0829.18

Expiration Date: November 15, 2017 Approval Date: November 07, 2013

# **Pella Corporation**

### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

### F. STATEMENTS (CONTINUED)

- 4. Statement letter of no financial interest, dated 10/19/11, signed and sealed by Warren W. Schaefer, P.E. (Submitted under previous NOA No. 12-0620.11)
- 5. Laboratory compliance letters for Test Reports No.'s ATI-93260.01-201-18, ATI-93328.01-201-18 and ATI-71262.08-201-18, all issued by Architectural Testing, Inc., dated 09/15/09 and 08/25/09, all signed and sealed by Joseph A. Reed, P.E. (Submitted under previous NOA's No.'s 07-0619.12 and 09-1027.05)

#### G. OTHERS

1. Notice of Acceptance No. 12-0620.11, issued to Pella Corporation for their Series "HIG Casement Aluminum Clad Wood Casement Window – L.M.I.", approved on 08/09/12 and expiring on 11/15/17.

Jaime D. Gascon, P. E.

Product Control Section Supervisor

NOA No. 13-0829.18

Expiration Date: November 15, 2017 Approval Date: November 07, 2013

#### **GENERAL NOTES:**

THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE

"ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.

4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE

5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).

6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS

ALL ANCHORS SECURING WINDOW FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.

8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF KD = 0.85 MAY BE APPLIED PER THE ASCE-7 STANDARD.

9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR CD = 1.6 WAS USED FOR WOOD SCREW ANALYSIS ONLY.

10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.

11. ALL WOOD MEMBERS OF WINDOWS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

## CORNER CONSTRUCTION

FRAME CORNERS: THE SIDE WOOD MEMBERS ARE BUTTED TO THE HEAD & SILL MEMBERS & SECURED WITH THREE(3) 14 GAGE 7/16" X 2 1/2" STAPLES. CLADDING IS MITERED TOGETHER, JOINED WITH A PLASTIC CORNER KEY PART NO. 77U00000 & SEALED WITH BUTYL DEVAN 578.12 OR BOSTIK 900 POLYURETHANE SEALANT. EACH CLADDING MEMBER IS SECURED TO THE KEY WITH 1 NO. 10 X 17/32\* FH SCREW (2 TOTAL PER CORNER) SASH CORNERS:

OPTION 1: MORTISE & TENON CONSTRUCTION. A 1/8" BEAD OF BOSTIK CHEM-CALK URETHANE IS PLACED AT THE TENNON BOTTOM SURFACE. WOOD GLUE IS PLACED AT THE TENNON SIDES. THE JOINT IS THEN ASSEMBLED & SECURED WITH ONE 15 GA. X 1 1/2" FINISH NAIL

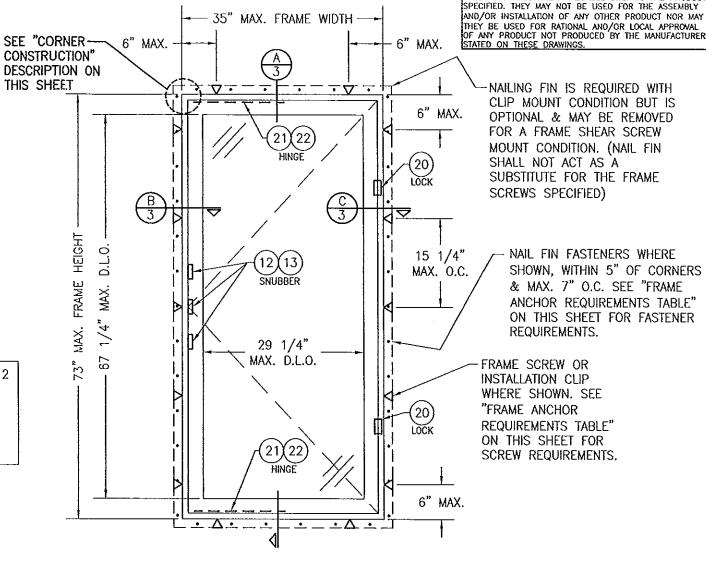
OPTION 2: SCREWED CONSTRUCTION. MEMBER ENDS ARE PROFILED AND PARTIALLY TENONED, BUTTED & ADHERED TOGETHER WITH BOSTIC 70-05/70-05A AND THEN SECURED WITH NO. 12 X 4" FH WOOD SCREWS (1 SCREW WITH SASH HEIGHTS LESS THAN 3.5"; 2 SCREWS WITH SASH HEIGHTS 3.5" TO 5 3/8"). THE CLADDING IS TABBED WITH THE TABS MEETING IN A BED OF BOSTIC IN A GROOVE ON THE EXTERIOR SASH FACE RESULTING FROM THE PARTIALLY TENNONED RAIL END.

FRAME ANCHOR REQUIREMENTS TABLE						
OPENING TYPE (SUBSTRATE)	FRAME/CLIP/NAIL FIN TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.			
FRAME SCREWS						
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	3/4"			
MIN. 18 GA. 33 KSI METAL STUD	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK A36 STEEL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"			
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"			
INSTALLATION CLIP SCREWS						
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 X 1 1/2" SMS	1 3/8"	1/2"			
MIN. 1/8" THK A36 STEEL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"			
(2) NAILING FIN FASTENERS						
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 X 1 1/2" SMS	1 3/8"	1/2"			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	2" X 11 GA. ROOFING NAIL	1 7/8"	1/2"			
MIN. 1/8" THK A36 STEEL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"			
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW						

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).

(2) WHEN SCREWS ARE USED WITH THE NAIL FIN, THEY MUST BE A WAFFLE HEAD SCREW OR HAVE A FLAT WASHER AT THE SCREW HEAD.

SASH CORNER OPTION 2 WINDOWS ARE LIMITED TO MAXIMUM  $\pm/-60$ PSF DESIGN PRESSURE (SEE PRESSURE NOTE ON THIS SHEET.)



**EXTERIOR ELEVATION:** SINGLE CASEMENT WINDOW SCALE: 3/4" = 1'-0"

ALLOWABLE WINDOW SIZE VS. PRESSURE TABLE ALLOWABLE PRESSURE NOTE: (SINGLE WINDOWS)

(3.1.1.2.3.1.4)						
GLASS OPTION	MAXIMUM FRAME HEIGHT	MAXIMUM FRAME WIDTH	ALLOWABLE PRESSURE (PSF)			
	(IN.)	(IN.)	POSITIVE	NEGATIVE		
Α	73	35	75	75		
	73	35	75	75		
В	71	32	75	85		
	65	35	75	85		
С	73	35	75	75		
D	73	35	75	75		
	71	32	75	85		
	65	35	75	85		
Ε	71	32	(*) 64.8	(*) 64.8		
	65	35	(*) 69.6	(*) 69.6		

(\*) WHEN THE 1/8" ANNEALED EXTERIOR PANE OF GLASS IN GLASS TYPE "E" IS SUBSTITUTED WITH 1/8" TEMPERED, THE ALLOWABLE PRESSURE MAY BE INCREASED TO +/-75 PSF.

PRESSURES LISTED IN TABLE CONSIDER WINDOWS WITH SASH CORNER CONSTRUCTION OPTION 1. WHEN SASH CORNER CONSTRUCTION OPTION 2 IS USED. ALLOWABLE PRESSURE MAY NOT EXCEED +/-60 PSF REGARDLESS OF PRESSURES SHOWN IN TABLE.

RODUCT REVISED is complying with the Florida Building Code 12 Acceptance No Saxpication Date

Miami Dade Product Contro

ATE: 03/23/07

CHECKED BY

HESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUC

CORPORATION

PELLA

WINDOW

CASEMENT

IMPACT

CLAD

ALUMINUM



R. ENGINEERING P.A. (CA 6809) DURT NORTH DURT NORTH SAGE FL. 33418 NSULTANTS

W. SCHAEFER

CONSULTING, P
7480 150TH COUR
PAIM BEACH GARDENS
PHONE: S61—74

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1518 SHEET NO. OF

